

72. *Adhesion of the Eyelids to the Globe of the Eye.*—M. PETREQUIN has succeeded in remedying this acquired deformity (which has hitherto been considered to be irremediable) in the following way. The principle of this method is to prevent the cicatrization of the opposed surfaces proceeding simultaneously, to have the healing process completed, or nearly so, on one surface before it has commenced on the other. In order to effect this object, he pierces the adhesion at a suitable depth with a needle carrying a double ligature. The ligature corresponding to the eyelid is rather loosely tied, so that it shall very slowly divide the parts it includes; but the second ligature, which corresponds to the eyeball, is, on the contrary, very firmly constricted, and rapidly cuts through the adhesion. In this way the wound on the sclerotic may be healed before there is any exposed surface on the eyelid with which it can unite, and the denser and more extensive the adhesion, the easier it is, by regulating the tightness of the ligature, to obtain an interval of several days between their separation. If the adhesion is very deep, it must be divided by several operations, penetrating to a greater depth each time. The eyeball must be kept fixed during the process by means of carefully applied compression, as otherwise its motion and that of the eyelid might cause inflammation, and premature separation of the ligature.—*B. & F. Med. Rev.*, from *Petrequin's Traité d'Anatomie Med. Chirurg.*

73. *Statistics of Operations for Cataract.*—Dr. EDWARD JÆGER, son of the celebrated ophthalmologist, gives the following as statistics of his father's operations for cataract, performed at the Josephine Academy, in Vienna.

From 1827 to 1844, Prof. Jæger operated on 1,011 cataracts, of which 764 were lenticular, 207 capsulo-lenticular, and 40 capsular. The kinds of operation to which he had recourse, were as follows:

	Cases.
Extraction by the Superior Section in	728
“ by the Inferior Section “	9
Partial Extraction “	58
Depression “	129
Breaking down the Lens “	87
	<hr/> 1,011

Of the above number, 63 lost their sight; and it will be seen, by the subjoined table, what were the processes employed that gave the worst results:

Of the 58 operated, by partial extraction	3
“ 737 “ by extraction	33
“ 87 “ by breaking down the lens	6
“ 129 “ by depression	21
	<hr/> 63

It follows, from this statement, that extraction has been the most successful; as the proportion of those who lose their sight to the number in whom the operation succeeded, is  $4\frac{1}{2}$  per cent. in extraction; 16 per cent. in depression; and 8 per cent. in breaking down the lens, or absorption. In order, however, to derive full satisfaction from these statistical returns, we ought to be apprized of the considerations that influenced Professor Jæger to have recourse to one operation in preference to another.—*Bulletin Med. Sci.*, from *Ueber die Behandlung des graner staares*, Vienna, 1845.

#### MIDWIFERY, AND DISEASES PECULIAR TO WOMEN.

74. *Suggestions regarding the Anatomical Source and Pathological Nature of Post-partum Hemorrhage.* By Prof. SIMPSON, of *Edinburgh.*—No doubt the occurrence, after delivery, of great and decided atony in the whole muscular system of the uterus does assuredly give rise to post-partum hemorrhage. But if I may judge from my own observations, I would venture to remark, that the morbid condition

which is most frequently and earliest seen in connection with post-partum hemorrhage, and which is specially remarkable in cases where the flooding is more enduring than usual, is a state of irregularity and want of equability in the contractile action of different parts of the uterus; and it may be in different planes of the uterine fibres, as marked by one or more points in the organ feeling hard and contracted, at the same time that other portions of the parietes are soft and relaxed, and by the contracting and relaxing fibres, slowly but frequently changing their relative situations.

Upon the same principle, I believe that in attempting to prevent or remove the morbid condition leading to post-partum hemorrhage, when it is functional in its nature, and not connected with any organic or traumatic causes, we ought to endeavour to produce not merely a certain *degree and amount* of uterine contraction (the great and primary practical point to which we always justly look), but also a certain *equability and uniformity* of contraction. At the same time I would repeat, that this part of the subject, like the whole question of the manner and means by which hemorrhage is prevented from the exposed uterine veins after every case of ordinary labour, stands, in my opinion, in need of new, careful, and extended investigations. I have, however, at present, no desire to encounter so wide and complicated an inquiry, and shall content myself with stating, in reference to the subject, the few following suggestions:

1. Uterine hemorrhage after the separation of the placenta in any of the stages of labour, is *not arterial* in its character. The utero-placental arteries are numerous, but so long and slender as to become readily closed; 1, by the tonicity of their coats; 2, by contraction of the uterine fibres upon the course of these vessels themselves as they pass through and amid the uterine structure; and 3, and principally by the changes in their tissues produced by the mechanical rupture of their coats, *torn arteries* being little if at all liable to bleed, and the placenta being separated by a true process of *avulsion*.

2. Hemorrhage, therefore, under the conditions supposed, is *venous* in its source and nature. Further, it is specially important to remark, that it is a *venous hemorrhage by retrogression*. The *forward* course of the uterine and utero-placental venous circulation is from the dilated maternal capillaries of cells of the placenta towards the periphery of the uterus and the ovarian and hypogastric venous trunks. In uterine hemorrhage the blood that escapes, instead of flowing onwards, regurgitates *backwards* into the uterine cavity.

3. The mechanism by which, after the separation of the placenta, this retrograde course of the venous circulation towards the cavity of the uterus, so as to lead to hemorrhage, is prevented, is probably of a compound character, or is effected by different means. Each of these means may be more or less efficient under different circumstances and at different times.

4. The most powerful of these preventive measures consists in the uniform and regular contraction of the uterine fibres. By this contraction the canals of the supplying arteries are constricted, and the venous tubes or sinuses which more immediately yield the discharge are directly compressed. The facility of this compression of the sides of the veins and the consequent diminution of their cavities, is promoted by the naturally thin, flattened forms of their canals, and by the fact that the proper contractile tissue of the uterus forms their second coat, the uterine veins consisting of the usual lining membrane of the venous system placed in direct contact with the muscular tissue of the uterus. At the same time it is to be recollected, that there seems to be often no direct relation between the degree of uterine contraction and the degree of tendency to hemorrhage, for, as we have just seen—1, no hemorrhage may occasionally be observed after delivery, though the uterus is not contracted to its usual degree; and 2, it may be present when the uterus is apparently well contracted; but, 3, there are, according to most anatomists, few or no *contracting* fibres in the structure of the os and cervix uteri, and certainly after delivery I have generally, if not always, found it remaining open, gaping, soft, and flaccid, even when the proper cavity of the uterus above felt shut and contracted, and its parietes hard and firm. Still when the placenta is attached to the surface of this *uncontracting* portion of the uterus, as in *placenta previa*, hemorrhage is not common after its separation, unless some laceration of its vessels has occurred. Here we have post-partum hemorrhage prevented *without* the contractile mechanism, generally considered necessary for its avoidance, being almost

in existence. And, 4, in cases of spontaneous or artificial extraction of the placenta *before* the child, in some placental presentations and twin labours, the placental mass may be completely separated, and the uterus still remain *distended* by the presence of a child in its cavity, so as to prevent much contraction of its fibres without hemorrhage occurring. The venous trunks running to the uterus are not supplied with valves, and under the above and other circumstances, by what means in addition to, or in substitution of, the contraction of the uterine fibres, does nature prevent the retrograde flow of venous blood into the uterine cavity; or, in other words, by what means does she prevent uterine hemorrhage?

5. The structure and mutual relations of the venous sinuses of the uterus seem calculated to obstruct and prevent such a retrograde flow of blood in their tubes as to cause hemorrhage. The uterine veins are large, but of a compressed, flattened form, and arranged in several planes or floors above one another in the uterine walls. On examining these veins in several pregnant uteri, by dissecting them from the outer or peritoneal surface of the organ downwards towards the mucous, I found the following arrangement: each venous tube gives off numerous communicating branches to the veins of its own plane or floor, by a set of *lateral* foramina. When, however, a venous tube of one plane comes to communicate with a venous tube lying in the plane immediately beneath it, the foramen between them is not in the *sides* but in the *floor* of the higher or more superficial vein, and the opening itself is of a peculiar construction. Looking down into it from above, we see the canal of the vein below partially covered by a semilunar or falciform projection, formed by the lining membrane of the two venous tubes as they meet together at a very acute angle, the lower tube always opening very obliquely into the upper. In the folds of these falciform projections the microscope shows the common contractile tissue of the uterus. Do these semilunar or falciform projections, and the oblique communications of the lower with the higher planes of veins, allow the normal flow of venous blood from the deeper to the more superficial veins of the uterus, while after the placenta is separated they prevent that anomalous or retrograde flow of it from the more superficial towards the deeper-seated venous tubes which would produce hemorrhage? Here I suppose it possible that these falciform processes may act upon the same principle as the Eustachian valve, but in a less perfect manner, while by the obliquity of the communications between the different planes of veins, it may be that blood does not so readily retrograde into the deeper vessels, in the same manner that urine does not retrograde into the ureters from the bladder, in consequence of the oblique opening of the former into the latter. Do the uterine fibres seen in the venous falciform processes tend to aid this valve-like mechanism by diminishing, under contraction, the apertures between the different planes of veins?

6. One cause contributing to prevent hemorrhage after the total separation of the placenta, is the abstraction from the uterine vascular system of the derivative or sugescent power of the maternal circulation in the placental cells, and the consequent tendency of the blood to flow in the more direct and freely communicating channels that exist between the uterine arteries and veins. Besides, the general and direct forward current of the blood along the course of these large uterine veins diminishes, and in a measure destroys the tendency which it might otherwise have either to flow backwards, or to escape by any existing lateral apertures of the vessels.

7. Among the other remaining means by which hemorrhage is more or less prevented after the detachment of the placenta, I may mention—1, the occasional presence of tufts of fetal vessels left in the orifices of the uterine veins, and forming not only immediate mechanical obstacles, but nuclei for the ready coagulation of the blood; 2, the formation of coagula in some of the collapsed venous tubes and orifices; and, 3, the presence for some hours, or even days, after delivery, of the collapsed decidua over the apertures seen in the veins on the interior of the uterus.

To these few and important suggestions I am desirous to add one remark. Several of the natural means of arresting uterine hemorrhage that I have spoken of, admit of extended anatomical examination being applied to their more perfect investigation; and some of the observations that I have ventured to offer may be yet proved or disproved, by being tested by direct experiments with vascular injections thrown into the dead body.—*Northern Journal of Medicine*, Jan., 1846.

75. *Some Observations on Uterine Polypi and Ulceration.* By W. F. MONTGOMERY, M. D. (*Dublin Quarterly Journal of Medical Science*, Aug., 1846.)—In this highly interesting paper the author relates twenty cases of uterine polypi treated by him. From these cases the following general deductions are drawn:—

That very small uterine polypi, or polypoid excrescences, are of frequent occurrence.

That they are often not discoverable by touch alone, and so escape notice.

That they may even elude detection with the speculum, especially if the instrument used is not capable of separating the lips of the os uteri.

That they are a common cause of ulceration and menorrhagia, one or both; the cure of which requires, as a preliminary step, the removal of the polypus.

That while thus, on the one hand, a small polypus may escape detection, there is, on the other hand, a peculiar condition of the anterior lip of the os uteri liable to be mistaken for a polypus, and requiring a long time for its removal.

That the very small polypus of the os uteri is seldom solitary, and, in common with polypi of other kinds, is very often combined with other diseases of the uterus, especially with fibrous tumour.

That these small polypi of the os uteri, when occurring in women of advanced age, especially if they are of the vesicular kind, are often the precursors of a malignant form of uterine disease.

That polypus being very frequently accompanied by ulceration of the os and cervix uteri, and its concomitant pain and structural alteration, the symptoms are occasionally mistaken for those of cancer; which error is most likely to be committed if an examination should happen to be made just when a polypus of rather large size is passing through, but still engaged in, and distending the os uteri.

That in cases of larger sized polypi, ligature is the means most generally eligible, as being safer than excision, though not so expeditious; its application having, in general, the immediate effect of restraining the morbid discharges, and alleviating other symptoms, and ultimately curing the disease.

That polypi and polypoid excrescences of small size are best removed by torsion; or in some instances their destruction may be conveniently effected by caustic.

That with large polypi torsion is unsafe and should not be attempted.

That even with a polypus of small bulk, and slender pedicle, excision is not free from the risk of troublesome hemorrhage, while with those of large size, there is great reason to apprehend such an occurrence taking place to a very dangerous degree, even though the precaution may have been taken of firmly constricting the pedicle with a ligature previous to its division.

That in ordinary cases of benign polypus, when no other disease exists in the uterus, the removal of the tumour by ligature, or other suitable means, is, in the vast majority of cases, completely successful, even under circumstances apparently quite hopeless.

That in malignant growths, such as cauliflower excrescence, removal by ligature will sometimes effect a complete cure; and that, where the success is not so decided, much good may be done by the operation.

That the situation from which a polypus springs makes a considerable difference in the symptoms which it produces: a polypus of the lip of the os uteri giving rise to fewer symptoms and much less discharge, than one of very inferior size growing from any part within the os uteri.

That a polypus of only moderate size growing from the lip of the os uteri is not likely to interfere, injuriously, with gestation or delivery, and its removal may be effected by, or as a consequence of, the pressure which it sustains during the expulsion of the child.

That if a polypus, already detached, be too large to pass readily out of the vagina, it ought not to be allowed to remain there; but should be removed with the least possible delay, as its putrefaction may be attended with very unpleasant consequences.

That a fibrous tumour, originally formed in the substance of the uterus, may thence descend, pass through the os uteri, and form an ordinary pediculated polypus in the vagina.

That in the unimpregnated state of the uterus, this change will be effected

gradually, and in general very slowly, but that, should pregnancy occur, the descent and expulsion of the tumour may take place quickly under the expulsive action of labour.

That a polypus, even of large size, may thus make its appearance for the first time, immediately after delivery, no suspicion having been previously entertained of its existence.

That the cure of long-standing polypus, with large discharges, is liable to be followed by a condition of the system requiring precautions against determination to the head.

The instrument which Dr. M. always uses for applying the ligature to uterine polypus is the double movable canula of Niessens, and he says that he has never met with a case which was not manageable by its means.

The ligature which he prefers and always uses is silk salmon fishing-line, prepared by soaking it in linseed oil, in which state it combines the necessary qualities of great strength, perfect pliability and softness, and remaining unaffected by moisture.

For twisting off small polypi, he uses a forceps, consisting of a straight stem about eight inches long, set in a handle; at the extremity of the stem are two short spring-blades, with serrated tips, upon which slides a brace movable from the handle, by which they are easily pressed firmly together, and made to grasp very securely any object caught between them.

76. *On the Nature of the Membrane occasionally expelled in Dysmenorrhœa.*—Professor SIMPSON, in an interesting article on this subject, in the *Monthly Journal of Medical Science*, (Sept. 1846,) expresses the opinion, founded on numerous observations, that the membranes occasionally expelled in dysmenorrhœa, are not the results, as is generally supposed, of fibrinous or plastic exudations upon the free surface of the mucous membrane of the uterus, but that they consist of actual exfoliations of that membrane itself.

He gives the following as the grounds upon which his opinion rests:—

“*First.* The dysmenorrhœal membrane presents anatomical peculiarities that are never seen in any simple fibrinous or inflammatory exudation; and these anatomical peculiarities, on the other hand, specially pertain to, and are characteristic of, the structure of some mucous tissues, such as that of the uterus. One special illustration may suffice. Professor Reid, Krauss, and others, have shown, that the surface of the mucous membrane of the uterus is marked by numerous orifices of small tubular glands, crypts, or follicles, opening upon it (the uterine glands of some modern authors). This structure I have distinctly traced in different specimens of dysmenorrhœal membrane from different individuals.

“*Secondly.* The general configuration and character of the surfaces of the dysmenorrhœal membrane are such as would result from the origin which I have attributed to it, namely, the exfoliation or detachment of the mucous membrane of the uterus. In those instances in which the membrane is thrown off in one piece, and without disintegration, it presents exactly the flattened triangular appearance of the uterine cavity. Its sides may be so compressed that the expelled mass at first appears solid; but a little careful dissection or maceration will readily show that it consists of two layers, and that there are the remains of a cavity between them. The interior of the cavity is smooth, and marked by the orifices of the uterine mucous crypts that I have above alluded to. Occasionally we can easily trace three large openings at its three angles, corresponding to the openings of the two Fallopian tubes and cervix uteri. But the external surface of the mass is rough and shaggy, marking the effects of dilaceration from the tissue of the uterus. Sometimes we see a piece discharged quite smooth on one surface, and rough on the other. When this is the case, we may be perfectly certain that it is a portion only of the membrane which has been expelled, or, at least, preserved for inspection. For, if the portion of mucous membrane lining the anterior wall of the uterus alone, or lining its posterior wall alone, be discharged and examined (and not that of the whole cavity), it will necessarily display the apparent anomaly alluded to. If the membrane is thrown off in broken or disintegrated fragments, as sometimes happens, it will be more difficult to trace the structural characteristics that I have mentioned. Another form of difficulty is